OCCUPATIONAL INJURIES
AND DISEASES IN **ALBERTA**

Lost-Time Claims, Disabling Injury
Claims and Claim Rates

Manufacturing, Processing and Packaging Sector

2004 to 2008

Summer 2009

WORK SAFE
ALBERTA

Government of Alberta
Employment
and Immigration

TABLE OF CONTENTS

Highlights 2

1. Introduction 5

2. Provincial Summary 7

3. Industry Sector Summary 10

4. Industry Sector Analysis 14

5. Demographics of Injured Workers 31

6. Injury and Disease Analysis 33

7. Occupational Fatalities 42

8. Certificate of Recognition 46

References 48

Appendix A: Terms, Definitions, and Formulas 49

Appendix B: Manufacturing, Processing and Packaging Industries WCB Codes 53

Contact Information 56

HIGHLIGHTS

Lower lost-time and disabling injury rates in 2008.

- The 2008 lost-time claim rate for the Manufacturing, Processing and Packaging sector decreased by 18.6% to 2.24 per 100 person-years worked from 2.75 in 2007. The average lost-time claim rate for all sectors in the province was 1.88 per 100 person-years worked. The duration rate in 2008 was 40 days lost per 100 person-years worked, a 20.6% decrease from 2007 and lower than the provincial average for all industry sectors, 41 days lost.
- The disabling injury rate decreased by 11.1% in 2008 to 5.78 per 100 person-years worked. The average disabling injury rate for all sectors in the province was 3.63 per 100 person-years worked.
- The decreases in the lost-time claim rate and disabling injury rate in 2008 were the result of decreases in the number of injury claims. Lost-time claims decreased by 20.6% and disabling injury claims by 13.3%. The person-years worked estimates decreased by 2.4%, meaning that the number of injury claims decreased at a greater rate than employment in the sector.
- The 2008 fatality rate for the Manufacturing, Processing and Packaging sector was 103 per million person-years worked, a decrease from 105 per million person-years worked in 2007. The average fatality rate for all sectors in the province in 2008 was 99 per million person-years worked.

Small-to-medium employers experienced the highest injury rates.

- Employers with 20 to 39 person-years worked had the highest lost-time claim rate in 2008, at 3.51 per 100 person-years worked, followed by employers with 10 to 19 person-years worked at 2.93. Employers with 100 or more person-years worked had the lowest rate, 1.86 per 100 person-years worked.
- Employers with 100 or more person-years worked had the highest disabling injury rate at 6.44 per 100 person-years worked, followed by employers with 20 to 39 person-years worked, 6.18. Employers with more than 100 person-years worked had a disabling injury rate over three times higher than the lost-time claim rate.

Injury rates decreased in most sectors.

- Lost-time claim and disabling injury rates decreased in most Manufacturing, Processing and Packaging sub-sectors. The Clothing and Textile Products sub-sector, the Foundries (not steel), Rubber and Non-metallic Products sub-sector and the Other Manufacturing, Processing and Packaging sub-sector displayed increases in lost-time claim rates in 2008. For disabling injury rates the Clothing and Textile

Products sub-sector and the Other Manufacturing, Processing and Packaging sub-sector displayed increases in 2008.

- The Gases, Fertilizer and Petrochemical - Refining and Manufacturing sub-sector had the lowest lost-time claim and disabling injury rates in 2008 at 0.19 and 0.66 per 100 person-years worked respectively.
- The Meat, Hides and Pelt Products sub-sector had the highest lost-time claim and disabling injury rates at 3.83 and 15.74 per 100 person-years worked respectively.
- The Manufacturing, Processing and Packaging sector accounted for 11.6% of the person-years worked in the province, 13.9% of the lost-time claims, 19.9% of modified work claims and when combined, 18.5% of the disabling injury claims.

In 2008, sprains, strains and tears was the most common nature of injury.

- Sprains, strains and tears continued to be the leading nature of injury, accounting for 42.1% of the disabling injury claims submitted in the Manufacturing, Processing and Packaging sector in 2008. However, the Manufacturing, Processing and Packaging sector had higher proportions for disabling injury claims for open wounds, indicating a likelihood 2.3 times higher than the average for all sectors.
- The back (including spine and spinal cord) was the most commonly injured body part, accounting for 18.6% of all disabling injury claims. Disabling injury claims connected with the eyes displayed a proportion that was 2.6 times the average for all sectors. Injuries to fingers or fingernails and the wrists and hands displayed proportions that were 2.5 and 2.0 times higher than the average for all sectors.
- The primary source of injury causing disabling injury claims in 2008 were persons, plants, animals and minerals, accounting for 22.7% of the disabling injury claims. This was followed by parts and materials, 21.1%. Compared to the average for all sectors in the province however, the injury category hand tools - powered displayed a proportion that was 3.0 times higher than the average for all sectors. Parts and materials, and machinery displayed proportions that were both 2.3 times higher than the average for all sectors.
- In 2008, the two most common types of event or exposure were bodily reaction and exertion and contact with objects and equipment, accounting for 41.5% and 39.8% of disabling injury claims in the Manufacturing, Processing and Packaging sector. Disabling injury claims caused by rubs or abrasions had a frequency that was 2.4 times the average for all sectors. Repetitive motion injuries and caught in object had proportions that were 3.0 and 2.5 times higher than the average for all sectors.
- The median work days lost was five and the average days lost per claim was 18. For all sectors of the province, the median days lost and average days lost was seven and 22 days lost per claim respectively.

A few notes about this report:

- This report presents 2008 data beside 2007 data to help with comparisons. Additional historical data are presented where possible.
- Information presented in this report is based on incidents that occurred during 2008 and accepted as lost-time or modified work claims by Workers' Compensation Board – Alberta (WCB) as of March 31, 2009.
- About 80% of employed persons in Alberta are covered by WCB. This report focuses on all industry activity in Alberta covered by the WCB and by the provincial legislation for occupational health and safety. Most industry sectors are included but notable exceptions consist of the Government of Canada, and parts of the agriculture and finance sectors. Several professional groups (i.e. the teaching and medical professions) are also excluded as are some industries where WCB coverage is not compulsory.
- Injury claim rates based on a small number of person-years worked are too volatile to make valid comparisons over time. Therefore, claim rates are not calculated when there are fewer than 40 person-years worked. Duration rates are also volatile when based on a small number of lost-time claims. Duration rates are not calculated when there are fewer than 30 lost-time claims.
- Estimates of year-over-year change for rates presented in this report are calculated using unrounded figures and may not match those produced from rounded figures. Percentages displayed in tables may also not total 100, due to rounding.
- Throughout the report, the lost-time claim rate is the number of lost-time claims per 100 person-years worked, the disabling injury rate is the number of disabling injury claims per 100 person-years worked and the duration rate is the number of days lost per 100 person-years worked. Fatality rates are expressed as the number of fatalities per million person-years worked.
- Analyses by industry are based on WCB industry classification and aggregation. For more information see http://ds.wcb.ab.ca/WCB.RateManual.WebServer/alphaindex.aspx.
- Analyses by occupation group are based on the National Occupational Classification (NOC). The NOC provides a standard list of occupations across the country. For more information see http://www5.hrsdc.gc.ca/NOC.
- Occupational injuries and diseases listed throughout this report are based on the Z795 Coding of Work Injury or Disease Information produced by the Canadian Standards Association (CSA) for categorizing occupational injury and disease. For information see http://www.shopcsa.ca/onlinestore/GetCatalogItemDetails.asp?mat=2416404.
- Terms, definitions and formulas used throughout this report are described in Appendix A.

INTRODUCTION

Role of the Ministry of Employment and Immigration

The Ministry of Employment and Immigration includes the reporting entity of the Department of Employment and Immigration (E&I). E&I develops and delivers policies, programs and services to foster labour force development; ensure fair, safe and healthy workplaces; and help those in need. The Department also provides leadership for immigration and interprovincial labour mobility policy for the Government of Alberta, and coordinates resources to support the settlement and integration of new Albertans. The Occupational Health and Safety Council (OHSC) is an administrative body that performs an advisory function in accordance with the power and authority specified under the *Occupational Health and Safety Act.*

Occupational Injuries and Diseases in Alberta – Manufacturing, Processing and Packaging sector 2004 to 2008

E&I prepares this annual report to provide analysis of workplace health and safety to meet the demand from industry and safety associations, labour organizations, employers and workers for incorporating this information into their strategic plans for enhancing workplace health and safety. This includes:

- descriptions of programs and initiatives undertaken in pursuit of its workplace health and safety mission and goals;
- analysis of provincial occupational injury and disease information;
- estimations of the risk of injury or disease at the provincial, industry sector and sub-sector level as well as general descriptions about the incidents and workers.

The *Occupational Injuries and Diseases in Alberta* publications present analysis of aggregate injury claim data to allow for the tracking of workplace health and safety performance over time. This is important for evaluating past and present performance, and in providing strategic information for the direction of workplace health and safety policy. The analysis contained in this report provides a comprehensive picture of workplace injuries in the province, allowing for a prevention focus to be made based on injury probabilities, rather than possibilities.

Healthy and Productive Workplaces

E&I promotes safe, healthy and productive workplaces, as well as fair, equitable and stable labour relations to ensure a fair, safe and healthy work environment for Alberta's workers. Work is central to people's lives, and to the stability of families and societies. People want work that provides them with an acceptable standard of living. It is important that workers enter an environment where their health and safety are protected, where they are treated

with respect and they are compensated fairly for the job they are doing. This results in an attractive workplace that furthers the position of Alberta employers to be competitive in the global economy (see Note 1.1). Alongside the human cost of occupational injuries and diseases and the impact on families and society, the economic costs are numerous.

Note 1.1
Research by the International Institute for Management Development and the World Economic Forum suggests that the safest-working countries also have the best competitiveness ratings
(ILO, XVIIth World Congress on Safety and Health at Work, Introductory Report: Decent Work-Safe Work, September 2005).

Direct compensation payments for occupational injury and disease by WCB are projected to total $740 million in 2009.[1] These costs are ultimately paid by employers through premium payments, and impact the costs of running a business as well as the final cost of delivering products and services. Further costs associated with occupational injuries and diseases include the material damage to equipment and premises, the additional cost of hiring staff to cover for injured workers, and the lost productivity resulting from the absence. Additional impacts of poor health and safety for employers include higher absenteeism and lower morale of employees, loss of skilled and experienced employees, loss of the company's investment in training, and difficulty recruiting high-quality employees due to the loss of image (particularly in the case of subcontractors to larger companies) all leading to losses in productivity and underutilization of production (see Note 1.2).

Other costs borne by the economy and society due in part to work-related injuries and diseases include early retirements, unemployment and poorer households. The International Labour Organization (ILO) estimates that in high-income countries, around 40% of all retirements (before statutory age) are caused by disability. This is equivalent to around 14% of the lifetime working capacity of the employed labour force.[2] Occupational injuries and diseases also affect unemployment and household income levels. Workers with an impairment of capacity can reduce their re-employability and impact household income. Workplace injuries and diseases typically reduce the overall earnings of households and in certain cases, family members have to give up jobs in order to care for an injured worker.

Note 1.2
The International Labour Organization (ILO) estimates that approximately 4% of Gross Domestic Product is lost due to occupational injuries and diseases (*ILO, World Day for Safety and Health at Work 2009 –Facts on safety and health at work issues, April 2009).*

[1] See the Workers Compensation Board Alberta 2009 Premium Rate Manual http://www.wcb.ab.ca/pdfs/employers/09_premium_rate_manual.pdf
[2] See the International Labour Organization report: Safety in numbers – pointers for a global safety culture at work http://www.ilo.org/public/english/protection/safework/worldday/report_eng.pdf

PROVINCIAL SUMMARY

The positive trend continues: there were fewer injuries reported and more person-years worked in 2008.

In recent years, improvements were made to the analysis of WCB claim information allowing for modified work claims to be analyzed alongside lost-time claims. Using modified work claim data in addition to lost-time claim data ensures a more comprehensive picture of workplace injuries, and allows for greater insight into incident prevention.

A lost-time claim is a claim submitted to the WCB for an occupational injury or disease that causes a worker to have time away from work beyond the day of injury. Included are claims receiving reimbursement of full or partial lost wages due to occupational illness or injury, or payment for permanent loss of function (for example, hearing loss claims).

Note 2.1

- **The lost-time claim rate represents the probability or risk of an injury or disease to a worker requiring time away from work, during a period of one year of work.**
- **The disabling injury rate represents the probability or risk of a disabling injury.**

A modified work claim is submitted for an occupational injury or disease where workers have their normal work duties altered enabling them to remain working without losing time from work. Included in the figures are claims where injured workers are helped back into the workplace with modified duties after time lost due to injury or disease, and cases where workers were provided modified duties prior to time lost because of an injury or disease.

Modifying an injured worker's duties can be beneficial for both an employer and an employee. For the employer, the financial cost of an absent worker can be high and returning an injured employee to work as soon as it is medically possible is important for properly managing compensation, disability claims and productivity levels. For the employee, returning to work as soon as medically possible is beneficial both physically and psychologically, and is linked to quicker recovery rates and higher self-esteem. Long absences from the workplace are also linked to decreases in labour market attachment.

The number of disabling injury claims reflects both the lost-time and modified work concepts and produces an overall figure where an occupational injury or disease disables a worker causing either time lost from work or for normal work duties to be modified.

In 2008, a total of 31,410 lost-time claims were accepted by WCB. This is a decrease of 8.2% from 2007. In contrast, the person-years worked estimates increased by 3.7% to 1,671,916 between 2007 and 2008 (see Table 2.1). Expressed as a lost-time claim rate, the data translates into a rate of 1.88 per 100 person-years worked, a decrease of 11.6% from 2007, as proportionately there were fewer lost-time injury claims. The 2008 rate is the

lowest in the past eighteen years and since 1991, the lost-time claim rate has decreased by 54.5%. Since 2004, the lost-time claim rate has decreased by 26.2%.

Table 2.1
Provincial Figures – Alberta: 2007 and 2008

	2007	2008	% Change
Person-years worked	**1,611,892**	**1,671,916**	3.7%
Lost-time claims	**34,227**	**31,410**	-8.2%
Lost-time claim rate	**2.12**	**1.88**	**-11.6%**
Modified work claims	**42,491**	**51,725**	21.7%
Lost-time claims involving modified work	**14,245**	**22,443**	57.6%
Disabling injury claims	**62,473**	**60,692**	-2.9%
Disabling injury rate	**3.88**	**3.63**	**-6.3%**
Duration rate	**48**	**41**	-13.9%
Days lost (LTC)	**767,671**	**689,523**	-10.2%
Compensation payments (LTC)	**$219,296,722**	**$211,054,921**	-3.8%

Data Source: WCB Data, Prepared by Data Development and Evaluation

The total number of modified work claims submitted in 2008 was 51,725, an increase of 21.7%. There were 22,443 claims involving both lost-time and modified work, producing 60,692 disabling injury claims, a decrease of 2.9% from 2007. The number of lost-time claims involving modified work increased by 57.6% from 2007, indicative of improving claims management. Expressed as a rate, the 2008 disabling injury rate was 3.63 per 100 person-years worked, a decrease of 6.3% from the 2007 rate of 3.88.

Estimates of injury and disease severity are calculated using information on the number of days lost from work. Three basic measures of severity are the duration rate, median days lost from work and average days lost from work. The severity of the injuries and diseases decreased in 2008, as reflected by a lower duration rate and a decrease in average days lost. The efforts of employers to introduce modified work programs to integrate injured workers back into the workforce also have a positive impact on work days lost. The duration rate of 41 days lost per 100 person-years worked was 13.9% lower than in 2007. The median number of work days lost in 2008 was seven, the same as 2007, and the average days lost decreased to 22.0, from 22.4 in 2007.

Table 2.2 displays the lost-time claim and disabling injury figures and rates for the province, and also for the major industry sectors in Alberta. The data provides a useful setting for analyzing the health and safety performance of the Manufacturing, Processing and Packaging sector.

The 2008 lost-time claim rate for the Manufacturing, Processing and Packaging sector of 2.24 per 100 person-years worked is higher than all major industry sectors except the Agriculture and Forestry sector, the Transportation, Communication and Utilities sector and the Public Administration, Education and Health Services sector. The disabling injury

rate for the Manufacturing, Processing and Packaging sector of 5.78 per 100 person-years worked is higher than all major industry sectors.

Table 2.2
Lost-Time Claim and Disabling Injury Rates by Major Industry Sector – Alberta: 2007 and 2008

Major Industry Sector	2007		2008	
	Lost-Time Claim Rate	Disabling Injury Rate	Lost-Time Claim Rate	Disabling Injury Rate
Alberta	2.12	3.88	**1.88**	**3.63**
Agriculture and Forestry	2.99	3.75	**2.72**	**3.65**
Business, Personal and Professional Services	1.30	1.86	**1.20**	**1.79**
Construction and Construction Trade Services	2.32	5.05	**1.91**	**4.65**
Mining and Petroleum Development	0.76	3.02	**0.66**	**2.92**
Public Administration, Education and Health Services	2.44	3.14	**2.29**	**3.30**
Transportation, Communication and Utilities	2.94	4.70	**2.69**	**4.42**
Wholesale and Retail	2.17	3.55	**1.99**	**3.44**
Manufacturing, Processing and Packaging	**2.75**	**6.50**	**2.24**	**5.78**

Data Source: WCB Data, Prepared by Data Development and Evaluation

INDUSTRY SECTOR SUMMARY

The 2008 lost-time claim rate for the Manufacturing, Processing and Packaging sector was 2.24 per 100 person-years worked and the disabling injury rate was 5.78.

In 2008, there were 4,360 lost-time claims and 11,245 disabling injury claims in the Manufacturing, Processing and Packaging sector, representing 13.9% of lost-time claims and 18.5% of disabling injury claims in the province. The Manufacturing, Processing and Packaging sector's lost-time claim rate decreased by 18.6% to 2.24 per 100 person-years worked. The disabling injury rate decreased by 11.1% to 5.78 per 100 person-years worked (see Table 3.1). The 2008 lost-time claim rate for all sectors in the province was 1.88 per 100 person-years worked, while the disabling injury rate was 3.63.

The decreases in the lost-time claim and disabling injury rates in 2008 were the result of the number of injury claims decreasing by an even greater amount than person-years worked. The number of lost-time claims decreased by 20.6% and the number of disabling injury claims decreased by 13.3%. The person-years worked estimates decreased by 2.4%, meaning that proportionately there were fewer injury claims.

Table 3.1
Manufacturing, Processing and Packaging Sector — Alberta: 2007-2008

	2007	2008	% Change
Person-years worked	199,357	**194,572**	-2.4%
Lost-time claims	5,490	**4,360**	-20.6%
Lost-time claim rate	**2.75**	**2.24**	**-18.6%**
Modified work claims	9,961	**10,295**	3.4%
Lost-time claims involving modified work	2,488	**3,410**	37.1%
Disabling injury claims	12,963	**11,245**	-13.3%
Disabling injury rate	**6.50**	**5.78**	**-11.1%**
Duration rate	51	**40**	-20.6%
Days lost (LTC)	101,413	**78,626**	-22.5%
Compensation payments (LTC)	$37,135,811	**$27,199,652**	-26.8%

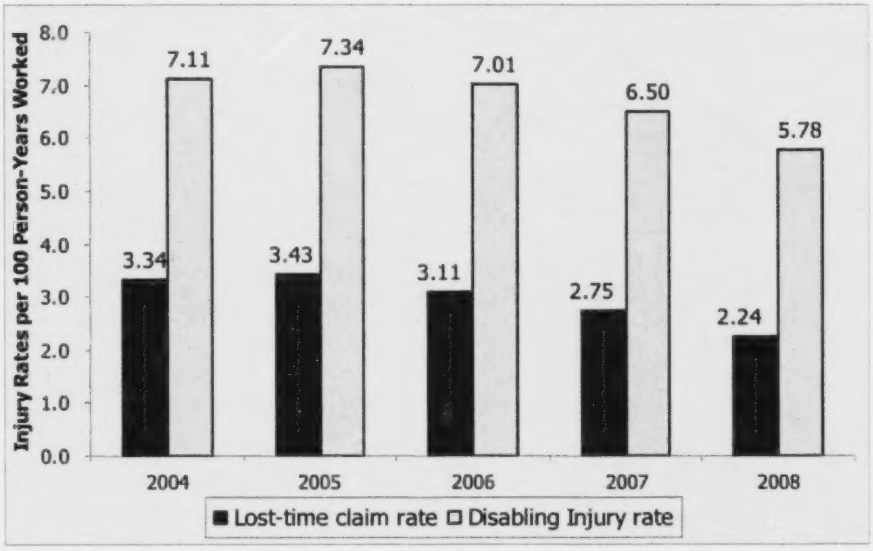
Data Source: WCB Data, Prepared by Data Development and Evaluation

The duration rate is intended to show the severity of the effects of occupational injury and disease as reflected by the number of days off work per 100 person-years worked. The efforts of employers to introduce modified work programs to integrate injured workers back into the workforce also have a positive impact on work days lost. In 2008, the Manufacturing, Processing and Packaging sector had a duration rate of 40 days lost per 100

person-years worked, a decrease of 20.6% from 2007. The Manufacturing, Processing and Packaging sector had relatively low median and average days lost at five and 18 respectively, lower than the provincial figures of seven and 22 days per claim.

Since 2004, the average lost-time claim rate for all sectors in the province has decreased by 26.2%. Over the same time period, the Manufacturing, Processing and Packaging sector saw a 32.9% decrease from 3.34 per 100 person-years worked in 2004 to 2.24. This was the result of lost-time claims decreasing by 28.3% and person-years worked increasing by 6.9%. This means that despite an increase in the number of people working in Manufacturing, Processing and Packaging sector in the last five years, the number of lost-time claims has decreased.

Chart 3.1
Lost-Time Claim and Disabling Injury Rates for the Manufacturing, Processing and Packaging Sector – 2004-2008[3]



Data Source: WCB Data, Prepared by Data Development and Evaluation

Rates by Employer Size

In the Manufacturing, Processing and Packaging sector, employers with 20 to 39 person-years worked had the highest lost-time claim rate at 3.51 per 100 person-years worked, followed by employers with 10 to 19 person-years worked at 2.93. Employers with 100 or more person-years worked had the lowest lost-time claim rate at 1.86, although the highest disabling injury rate at 6.44 per 100 person-years worked (see Table 3.2).

[3] Disabling Injury Rates are available from 2004 onwards. The rate in 2004 was produced using a 27 month period to capture information on submitted claims in the 2004 calendar year. From 2005, a consistent 15 month period has been used to capture claims for particular years, in line with the methodology for the production of Lost-Time Claim Rates.

For all sectors of the province, employers with 20 to 39 person-years worked and employers with 40 to 99 person-years worked had the highest lost-time claim rates at 2.22 and 2.14 per 100 person-years worked respectively. Employers with 100 or more person-years worked had the highest disabling injury rate at 4.02 per 100 person-years worked.

Table 3.2
Lost-Time Claim and Disabling Injury Rate by Size[4] of Employer — Alberta: 2008

Size of Employer	Number of Accounts	Person-Years	Lost-Time Claims	Disabling Injury Claims	Lost-Time Claim Rate	Disabling Injury Rate
Less than 10 person-years worked	12,527	19,775	416	536	2.10	2.71
10 to 19 person-years worked	855	12,168	356	528	2.93	4.34
20 to 39 person-years worked	633	17,989	632	1,111	3.51	6.18
40 to 99 person-years worked	515	31,832	800	1,744	2.51	5.48
100 or more person-years worked	390	112,808	2,094	7,261	1.86	6.44
Unspecified*	26	N/A*	62	65	N/A*	N/A*

* These are employers with no payroll information or with person-years worked equal to zero.
Data Source: WCB Data, Prepared by Data Development and Evaluation.

Distribution of Injury Claims

Table 3.3 presents figures for the proportion of employers in the Manufacturing, Processing and Packaging sector with no lost-time claims and the proportion of employers with no disabling injury claims in 2008. Table 3.4 displays the proportion of employers with submitted claims.

In 2008, 90% of employers had no lost-time claims and 87% of employers had no disabling injury claims, meaning the injuries and diseases happening in the province are the result of incidents occurring at the operations of 13% of employers (see Table 3.3). For all sectors in the province, 93% of employers submitted no lost-time claims and 92% of employers submitted no disabling injury claims. These figures are however, influenced by employer size. In 2008, the number of employers with no lost-time or disabling injury claims translates to approximately 36% and 24% of the total person-years worked in the Manufacturing, Processing and Packaging sector respectively (see Table 4.14).

[4] Size is measured in terms of person-years worked. One person-year is equivalent to one full-time worker working for one year.

Table 3.3
Proportion of Employers with no Lost-Time or Disabling Injury Claims – Manufacturing, Processing and Packaging Sector: 2008

Proportion of Employers	With no Lost-Time Claims	With no Disabling Injury Claims
Manufacturing, Processing and Packaging sector	90%	87%

Data Source: WCB Data, Prepared by Data Development and Evaluation

For employers with submitted claims, 53% submitted one lost-time claim, 38% two to five claims and 10% six or more lost-time claims. For disabling injury claims, similar proportions exist although the number of employers submitting six or more disabling injury claims was 21% (see Table 3.4).

Employers that submitted one to five lost-time claims and employers that submitted one to five disabling injury claims accounted for 40% and 28% of the total person-years worked in the Manufacturing, Processing and Packaging sector respectively. Employers that submitted six or more lost-time claims and employers that submitted six or more disabling injury claims accounted for 24% and 48% of the total person-years worked in the Manufacturing, Processing and Packaging sector.

Table 3.4
Proportion of Employers with Claims – Manufacturing, Processing and Packaging Sector: 2008

1 Lost-Time Claim	2 to 5 Lost-Time Claims	6 to 20 Lost-Time Claims	Over 20 Lost-Time Claims
53%	38%	9%	1%
1 Disabling Injury Claim	**2 to 5 Disabling Injury Claims**	**6 to 20 Disabling Injury Claims**	**Over 20 Disabling Injury Claims**
43%	36%	16%	5%

Data Source: WCB Data, Prepared by Data Development and Evaluation

INDUSTRY SECTOR ANALYSIS

In 2008, the Meat, Hides and Pelt Products sub-sector had the highest lost-time claim rate and the highest disabling injury rate.

Between 2004 and 2008, the Meat, Hides and Pelt Products sub-sector had the highest lost-time claim rate of all Manufacturing, Processing and Packaging sub-sectors at 3.83 per 100 person-years worked. The Furniture and Allied products sub-sector had the second highest rate in three of the five years, with the Feed/Seed, Food and Beverage Products sub-sector having the second highest lost-time claim rate in 2005 and in 2008. The Gases, Fertilizer and Petrochemical Refining and Manufacturing sub-sector displayed the largest decrease since 2004, 64.3%.

In 2008, the Meat, Hides and Pelt Products sub-sector had a disabling injury claim rate of 15.74 per 100 person-years worked, the highest of any Manufacturing, Processing and Packaging sub-sectors (see Chart 4.1 and Chart 4.2).

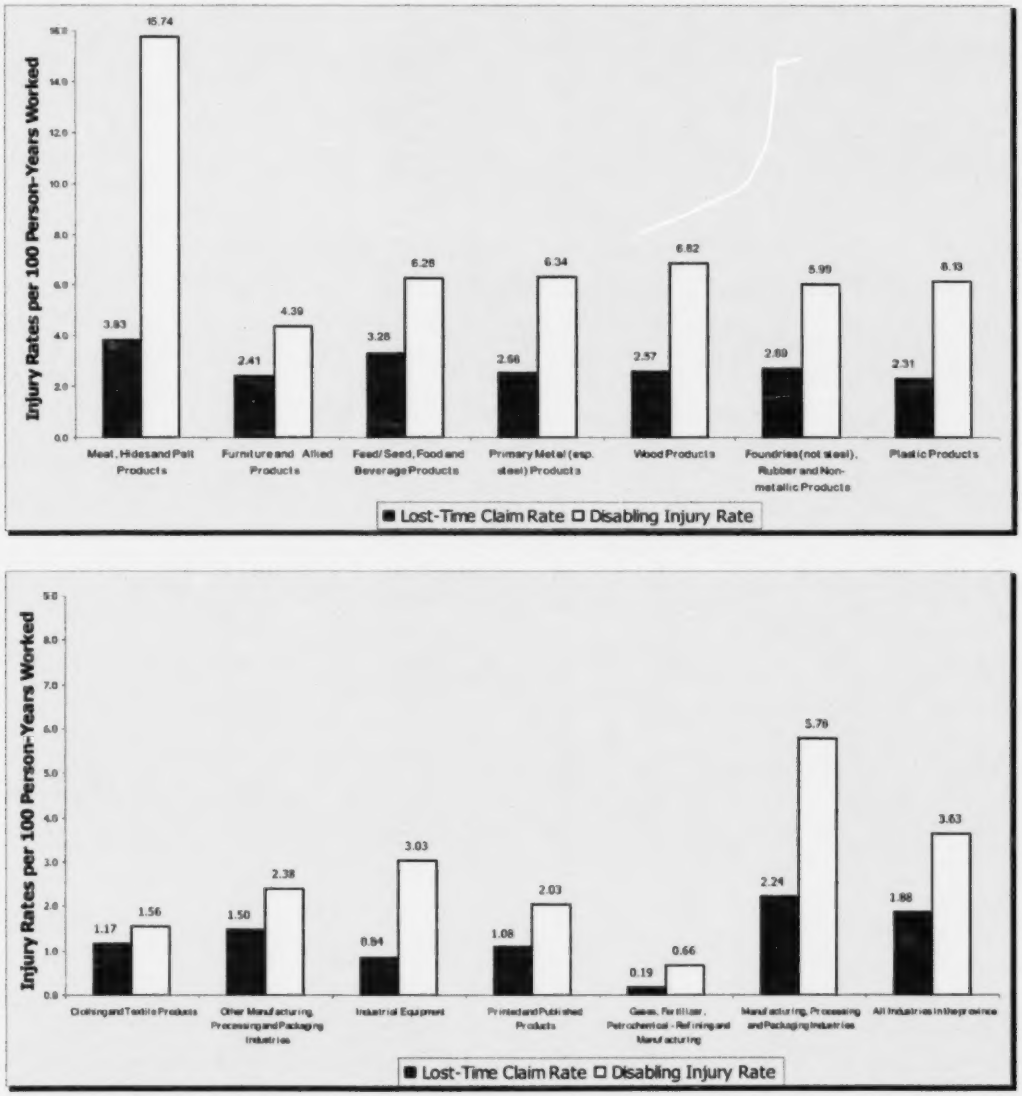
Table 4.1
Lost-Time Claim Rate by Manufacturing, Processing and Packaging Sub-Sector — Alberta: 2004-2008

Sub-Sector	2004	2005	2006	2007	2008
Manufacturing, Processing and Packaging	3.34	3.43	3.11	2.75	**2.24**
Meat, Hides and Pelt Products	6.11	6.48	6.97	5.20	**3.83**
Clothing and Textile Products	1.96	1.47	1.64	1.11	**1.17**
Feed/Seed, Food and Beverage Products	4.43	4.51	4.09	3.45	**3.28**
Wood Products	3.59	3.61	3.59	3.54	**2.57**
Furniture and Allied Products	4.91	4.46	4.58	4.55	**2.41**
Printed and Published Products	1.42	1.73	1.33	1.44	**1.08**
Foundries (not steel), Rubber and Non-metallic Products	3.52	3.58	3.24	2.66	**2.69**
Primary Metal (esp. steel) Products	3.92	4.03	3.66	2.90	**2.56**
Industrial Equipment	1.26	1.33	1.37	1.17	**0.84**
Gases, Fertilizer and Petrochemical Refining and Manufacturing	0.53	0.42	0.18	0.37	**0.19**
Plastic Products	3.86	3.29	3.04	2.35	**2.31**
Other Manufacturing, Processing and Packaging Industries	1.82	1.67	1.55	1.72	**1.50**

Data Source: WCB Data, Prepared by Data Development and Evaluation

The Gases, Fertilizer and Petrochemical Refining and Manufacturing sub-sector had the lowest lost-time claim and disabling injury rates in 2008 at 0.19 and 0.66 per 100 person-years worked, respectively (see Chart 4.1). More than half of the sub-sectors in the Manufacturing, Processing and Packaging sector had lost-time claim and disabling injury rates higher than the average rates for all sectors of 1.88 and 3.63 per 100 person-years worked.

Chart 4.1
Lost-Time Claim and Disabling Injury Rate by Manufacturing, Processing and Packaging Sub-Sector — Alberta: 2008



Data Source: WCB Data, Prepared by Data Development and Evaluation

Meat, Hides and Pelt Products

In 2008, the lost-time claim rate for the Meat, Hides and Pelt Products sub-sector decreased by 26.3% to 3.83 per 100 person-years worked, a result of the number of lost-time claims decreasing by 25.1% and person-years worked increasing by 1.5%, meaning that proportionately there were fewer lost-time claims. The disabling injury rate decreased by 7.8% in 2008 although it remains the highest in the Manufacturing, Processing and Packaging sector at 15.74 per 100 person-years worked (see Table 4.2).

The duration rate decreased by 25.3% in 2008, to 53 days lost per 100 person-years worked. The average duration rate for all sectors of the province was 41. There were indications of lower injury severity in this sub-sector, with a median days lost of five and an average days lost of 14 days per claim. The average for all sectors in the province was higher at seven and 22, respectively.

Since 2004, the lost-time claim rate for this sub-sector decreased by 37.2%. The average decrease for the Manufacturing, Processing and Packaging sector was 32.9%. The average decrease for all sectors of the province was 26.2%.

Table 4.2
Meat, Hides and Pelt Products — Alberta: 2007-2008

	2007	2008	% Change
Person-years worked	13,079	**13,279**	1.5%
Lost-time claims	680	**509**	-25.1%
Lost-time claim rate	**5.20**	**3.83**	**-26.3%**
Modified work claims	1,971	**2,052**	4.1%
Lost-time claims involving modified work	417	**471**	12.9%
Disabling injury claims	2,234	**2,090**	-6.4%
Disabling injury rate	**17.08**	**15.74**	**-7.8%**
Duration rate	71	**53**	-25.3%
Days lost (LTC)	9,283	**7,039**	-24.2%
Compensation payments (LTC)	$3,816,726	**$2,639,362**	-30.8%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Clothing and Textile Products

In 2008, the lost-time claim rate for the Clothing and Textile Products sub-sector increased by 5.4% to 1.17 per 100 person-years worked, a result of the number of lost-time claims decreasing by 28.9% and person-years worked by 32.6%, meaning that proportionately, there were more lost-time claims. The disabling injury rate in 2008 was the second lowest of the Manufacturing, Processing and Packaging sub-sectors at 1.56 per 100 person-years worked (see Table 4.3).

The median days lost was five and average days lost was 13 days per claim in 2008. The average for all sectors in the province was seven and 22, respectively.

Since 2004, the lost-time claim rate for this sub-sector decreased by 40.4%. The average decrease for the Manufacturing, Processing and Packaging sector was 32.9%. The average decrease for all sectors of the province was 26.2%.

Table 4.3
Clothing and Textile Products — Alberta: 2007-2008

	2007	2008	% Change
Person-years worked	3,427	**2,311**	-32.6%
Lost-time claims	38	**27**	-28.9%
Lost-time claim rate	**1.11**	**1.17**	**5.4%**
Modified work claims	21	**25**	19.0%
Lost-time claims involving modified work	9	**16**	77.8%
Disabling injury claims	50	**36**	-28.0%
Disabling injury rate	**1.46**	**1.56**	**6.8%**
Duration rate	29	**N/A***	N/A*
Days lost (LTC)	1,010	**344**	-65.9%
Compensation payments (LTC)	$220,926	**$93,369**	-57.7%

* Duration rates are not calculated when there are less than 30 lost-time claims.
Data Source: WCB Data, Prepared by Data Development and Evaluation

Feed/Seed, Food and Beverage Products

In 2008, the lost-time claim rate for the Feed/Seed, Food and Beverage Products sub-sector decreased by 4.8% to 3.28 per 100 person-years worked, a result of the number of lost-time claims decreasing by 5.0% and person-years worked by 0.2%, meaning that proportionately, there were fewer lost-time claims. The disabling injury rate decreased by 1.3% in 2008 to 6.28 per 100 person-years worked (see Table 4.4).

The duration rate decreased by 7.2% to 50 days lost per 100 person-years worked in 2008. The average duration rate for all sectors of the province was 41. The median days lost was five and average days lost 15 days per claim. The average for all sectors in the province was higher at seven and 22, respectively.

Since 2004, the lost-time claim rate for this sub-sector decreased by 25.9%. The average decrease for the Manufacturing, Processing and Packaging sector was 32.9%. The average decrease for all sectors of the province was 26.2%.

Table 4.4
Feed/Seed, Food and Beverage Products — Alberta: 2007-2008

	2007	2008	% Change
Person-years worked	16,109	**16,071**	-0.2%
Lost-time claims	555	**527**	-5.0%
Lost-time claim rate	**3.45**	**3.28**	**-4.8%**
Modified work claims	777	**934**	20.2%
Lost-time claims involving modified work	306	**451**	47.4%
Disabling injury claims	1,026	**1,010**	-1.6%
Disabling injury rate	**6.37**	**6.28**	**-1.3%**
Duration rate	54	**50**	-7.2%
Days lost (LTC)	8,765	**8,115**	-7.4%
Compensation payments (LTC)	$3,381,952	**$2,451,253**	-27.5%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Wood Products

The Wood Products sub-sector is the second largest sub-sector in the Manufacturing, Processing and Packaging sector, accounting for 13% of the person-years worked. In 2008, the lost-time claim rate decreased by 27.3% to 2.57 per 100 person-years worked, a result of the number of lost-time claims decreasing by 34.4% and person-years worked decreasing by 9.8%, meaning that proportionately there were fewer lost-time claims. The disabling injury rate in 2008 increased by 24.1% to 6.82 per 100 person-years worked (see Table 4.5).

In 2008, the duration rate decreased to 52 days lost per 100 person-years worked. The average duration rate for all sectors of the province was 41. The median days lost was six and average days lost 20 days per claim. The average for all sectors in the province was higher at seven and 22, respectively.

Since 2004, the lost-time claim rate for this sub-sector decreased by 28.4%. The average decrease for the Manufacturing, Processing and Packaging sector was 32.9%. The average decrease for all sectors of the province was 26.2%.

Table 4.5
Wood Products — Alberta: 2007-2008

	2007	2008	% Change
Person-years worked	28,238	**25,481**	-9.8%
Lost-time claims	999	**655**	-34.4%
Lost-time claim rate	**3.54**	**2.57**	**-27.3%**
Modified work claims	1,994	**1,604**	-19.6%
Lost-time claims involving modified work	454	**520**	14.5%
Disabling injury claims	2,539	**1,739**	-31.5%
Disabling injury rate	**8.99**	**6.82**	**-24.1%**
Duration rate	64	**52**	-18.9%
Days lost (LTC)	17,969	**13,148**	-26.8%
Compensation payments (LTC)	$6,173,930	**$4,434,048**	-28.2%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Furniture and Allied Products

In 2008, the lost-time claim rate for the Furniture and Allied Products sub-sector decreased by 47.1% to 2.41 per 100 person-years worked, a result of the number of lost-time claims decreasing by 50.3% and person-years worked decreasing by 6.1%, meaning that proportionately there were fewer lost-time claims. The disabling injury rate in 2008 decreased by 32.9% to 4.39 per 100 person-years worked (see Table 4.6).

In 2008, the duration rate decreased to 41 days lost per 100 person-years worked. The average duration rate for all sectors of the province was 41. The median days lost was six and average days lost 17 days per claim. The average for all sectors in the province was higher at seven and 22, respectively.

Since 2004, the lost-time claim rate for this sub-sector decreased by 51.0%. The average decrease for the Manufacturing, Processing and Packaging sector was 32.9%. The average decrease for all sectors of the province was 26.2%.

Table 4.6
Furniture and Allied Products — Alberta: 2007-2008

	2007	2008	% Change
Person-years worked	3,229	**3,032**	-6.1%
Lost-time claims	147	**73**	-50.3%
Lost-time claim rate	**4.55**	**2.41**	**-47.1%**
Modified work claims	132	**115**	-12.9%
Lost-time claims involving modified work	68	**55**	-19.1%
Disabling injury claims	211	**133**	-37.0%
Disabling injury rate	**6.54**	**4.39**	**-32.9%**
Duration rate	118	**41**	-65.1%
Days lost (LTC)	3,794	**1,245**	-67.2%
Compensation payments (LTC)	$937,270	**$305,246**	-67.4%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Printed and Published Products

In 2008, the lost-time claim rate for the Printed and Published Products sub-sector decreased by 25.2% to 1.08 per 100 person-years worked, a result of the number of lost-time claims decreasing by 34.3% and person-years worked decreasing by 12.3%. The disabling injury rate decreased in 2008 by 7.2% to 2.03 per 100 person-years worked (see Table 4.7).

The duration rate decreased to 21 days lost per 100 person-years worked in 2008, and it was lower than the average duration rate for all sectors of the province, 41. The median days lost was seven and average days lost 19 days per claim. The average for all sectors in the province was seven and 22, respectively.

Since 2004, the lost-time claim rate for this sub-sector decreased by 24.2%. The average decrease for the Manufacturing, Processing and Packaging sector was 32.9%. The average decrease for all sectors of the province was 26.2%.

Table 4.7
Printed and Published Products — Alberta: 2007-2008

	2007	2008	% Change
Person-years worked	13,755	**12,069**	-12.3%
Lost-time claims	198	**130**	-34.3%
Lost-time claim rate	**1.44**	**1.08**	**-25.2%**
Modified work claims	174	**204**	17.2%
Lost-time claims involving modified work	71	**89**	25.4%
Disabling injury claims	301	**245**	-18.6%
Disabling injury rate	**2.19**	**2.03**	**-7.2%**
Duration rate	36	**21**	-42.4%
Days lost (LTC)	4,941	**2,497**	-49.5%
Compensation payments (LTC)	$981,781	**$801,609**	-18.4%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Foundries (not Steel), Rubber and Non-metallic Products

In 2008, the lost-time claim rate for the Foundries, Rubber and Non-metallic Products sub-sector increased by 0.9% to 2.69 per 100 person-years worked, a result of the number of lost-time claims decreasing by 9.0% and person-years worked decreasing by 9.8%. Despite an increase in the lost-time claim rate in this sub-sector, the number of lost-time claims has decreased. The disabling injury rate in 2008 decreased by 8.4% to 5.99 per 100 person-years worked (see Table 4.8).

The duration rate increased by 35.5% in 2008 to 74 days lost per 100 person-years worked. The average duration rate for all sectors of the province was 41. The median days lost was nine and average days lost 27 days per claim. The average for all sectors in the province was lower at seven and 22, respectively.

Since 2004, the lost-time claim rate for this sub-sector decreased by 23.7%. The average decrease for the Manufacturing, Processing and Packaging sector was 32.9%. The average decrease for all sectors of the province was 26.2%.

Table 4.8
Foundries (not Steel), Rubber and Non-Metallic products – Alberta: 2007-2008

	2007	2008	% Change
Person-years worked	10,438	**9,411**	-9.8%
Lost-time claims	278	**253**	-9.0%
Lost-time claim rate	**2.66**	**2.69**	**0.9%**
Modified work claims	538	**484**	-10.0%
Lost-time claims involving modified work	133	**173**	30.1%
Disabling injury claims	683	**564**	-17.4%
Disabling injury rate	**6.54**	**5.99**	**-8.4%**
Duration rate	54	**74**	35.5%
Days lost (LTC)	5,685	**6,945**	22.2%
Compensation payments (LTC)	$2,557,902	**$2,244,763**	-12.2%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Primary Metal (esp. Steel) Products

The Primary Metal Products sub-sector is the largest of the Manufacturing, Processing and Packaging sub-sectors accounting for 35.6% of the total person-years worked. In 2008, the lost-time claim rate decreased by 11.8% to 2.56 per 100 person-years worked, a result of the number of lost-time claims decreasing by 15.4% and person-years worked decreasing by 4.1%. The disabling injury rate in 2008 decreased by 3.7% to 6.34 per 100 person-years worked (see Table 4.9).

The duration rate decreased in 2008 by 19.0% to 45 days lost per 100 person-years worked. The average duration rate for all sectors of the province was 41. The median days lost was five and average days lost 18 days per claim. The average for all sectors in the province was higher at seven and 22, respectively.

Since 2004, the lost-time claim rate for this sub-sector decreased by 34.8%. The average decrease for the Manufacturing, Processing and Packaging sector was 32.9%. The average decrease for all sectors of the province was 26.2%.

Table 4.9
Primary Metal (esp. Steel) Products — Alberta: 2007-2008

	2007	2008	% Change
Person-years worked	72,219	**69,267**	-4.1%
Lost-time claims	2,092	**1,770**	-15.4%
Lost-time claim rate	**2.90**	**2.56**	**-11.8%**
Modified work claims	3,474	**3,959**	14.0%
Lost-time claims involving modified work	812	**1,336**	64.5%
Disabling injury claims	4,754	**4,393**	-7.6%
Disabling injury rate	**6.58**	**6.34**	**-3.7%**
Duration rate	55	**45**	-19.0%
Days lost (LTC)	39,885	**30,987**	-22.3%
Compensation payments (LTC)	$14,618,718	**$11,286,459**	-22.8%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Industrial Equipment

In 2008, the lost-time claim rate for the Industrial Equipment sub-sector decreased by 28.2% to 0.84 per 100 person-years worked, a result of the number of lost-time claims decreasing by 29.3% and person-years worked decreasing by 1.5%, meaning that proportionately there were fewer lost-time claims. The disabling injury rate in 2008 decreased by 12.3% to 3.03 per 100 person-years worked (see Table 4.10).

The duration rate decreased in 2008 from 19 to 14 days lost per 100 person-years. The average duration rate for all sectors of the province was 41. The median days lost was five and the average days lost 17 days per claim. The average for all sectors in the province was higher at seven and 22, respectively.

Since 2004, the lost-time claim rate for this sub-sector decreased by 33.2%. The average decrease for the Manufacturing, Processing and Packaging sector was 32.9%. The average decrease for all sectors of the province was 26.2%.

Table 4.10
Industrial Equipment — Alberta: 2007-2008

	2007	2008	% Change
Person-years worked	11,960	**11,782**	-1.5%
Lost-time claims	140	**99**	-29.3%
Lost-time claim rate	**1.17**	**0.84**	**-28.2%**
Modified work claims	332	**331**	-0.3%
Lost-time claims involving modified work	59	**73**	23.7%
Disabling injury claims	413	**357**	-13.6%
Disabling injury rate	**3.45**	**3.03**	**-12.3%**
Duration rate	19	**14**	-27.3%
Days lost (LTC)	2,285	**1,636**	-28.4%
Compensation payments (LTC)	$956,758	**$888,903**	-7.1%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Gases, Fertilizer and Petrochemical – Refining and Manufacturing

In 2008, the lost-time claim rate for the Gases, Fertilizer and Petrochemical – Refining and Manufacturing sub-sector decreased from 0.37 in 2007 to 0.19 per 100 person-years worked. This was the result of the number of lost-time claims decreasing by 17.1% and person-years worked increasing by 61.7%. The disabling injury rate in 2008 decreased from 1.08 to 0.66 per 100 person-years worked (see Table 4.11). The lost-time claim rate and the disabling injury rate for the Gases, Fertilizer and Petrochemical – Refining and Manufacturing sub-sector remain the lowest of the Manufacturing, Processing and Packaging sub-sectors.

The median days lost was eight and average days lost 18 days per claim. The average for all sectors in the province was seven and 22, respectively.

Since 2004, the lost-time claim rate for this sub-sector decreased by 64.3%. The average decrease for the Manufacturing, Processing and Packaging sector was 32.9%. The average decrease for all sectors of the province was 26.2%.

Table 4.11
Gases, Fertilizer and Petrochemical – Refining and Manufacturing — Alberta: 2007-2008

	2007	2008	% Change
Person-years worked	9,446	**15,275**	61.7%
Lost-time claims	35	**29**	-17.1%
Lost-time claim rate	**0.37**	**0.19**	**-48.8%**
Modified work claims	86	**92**	7.0%
Lost-time claims involving modified work	19	**20**	5.3%
Disabling injury claims	102	**101**	-1.0%
Disabling injury rate	**1.08**	**0.66**	**-38.8%**
Duration rate	6	**N/A***	N/A*
Days lost (LTC)	552	**508**	-8.0%
Compensation payments (LTC)	$738,449	**$253,979**	-65.6%

* Duration rates are not calculated when there are less than 30 lost-time claims.
Data Source: WCB Data, Prepared by Data Development and Evaluation

Plastic Products

In 2008, the lost-time claim rate for the Plastic Products industry decreased by 1.5% to 2.31 per 100 person-years worked, the result of the number of the person-years worked increasing by an even greater amount than lost-time claims. Lost-time claims increased by 7.7% and the person-years worked by 9.3%. The disabling injury rate in 2008 decreased by 8.5% to 6.13 per 100 person-years worked (see Table 4.12).

The duration rate increased by 54.4% to 44 days lost per 100 person-years worked in 2008. The average duration rate for all sectors of the province was 41. The median days lost was five and average days lost 19 days per claim. The average for all sectors in the province was higher at seven and 22, respectively.

Since 2004, the lost-time claim rate for this industry decreased by 40.1%. The average decrease for the Manufacturing, Processing and Packaging sector was 32.9%. The average decrease for all sectors of the province was 26.2%.

Table 4.12
Plastic Products — Alberta: 2007-2008

	2007	2008	% Change
Person-years worked	4,433	**4,847**	9.3%
Lost-time claims	104	**112**	7.7%
Lost-time claim rate	**2.35**	**2.31**	**-1.5%**
Modified work claims	242	**277**	14.5%
Lost-time claims involving modified work	49	**92**	87.8%
Disabling injury claims	297	**297**	0.0%
Disabling injury rate	**6.70**	**6.13**	**-8.5%**
Duration rate	28	**44**	54.4%
Days lost (LTC)	1,256	**2,120**	68.8%
Compensation payments (LTC)	$623,867	**$769,579**	23.4%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Distribution of injury claims

Table 4.13 presents figures for the proportion of employers without lost-time claims and the proportion of employers without disabling injury claims in 2008, by sub-sector. Table 4.14 displays the respective person-years worked for those employers. Table 4.15 displays figures for the number of claims submitted by employers.

Three industry sub-sectors had higher proportions of employers with no lost-time claims and higher proportions of employers with no disabling injury claims than the average for the Manufacturing, Processing and Packaging sector, indicating a more highly concentrated occurrence of injury in those sub-sectors. These were the Clothing and Textile Products sub-sector, the Furniture and Allied Products sub-sector and the Primary Metal Products sub-sector (see Table 4.13).

These figures however, are influenced by employer size. In 2008, the number of employers with no lost-time claims translates to 71%, 64% and 35% of the total person-years worked in these three sub-sectors respectively (see Table 4.14).

Table 4.13
Proportion of Employers with no Lost-Time or Disabling Injury Claims, by Manufacturing, Processing and Packaging Sub-Sector – Alberta: 2008

Proportion of Employers by Sub-Sector	With no Lost-Time Claims	With no Disabling Injury Claims
Manufacturing, Processing and Packaging	**90%**	**87%**
Meat, Hides and Pelt Products	62%	59%
Clothing and Textile Products	96%	95%
Feed/Seed, Food and Beverage Products	77%	76%
Wood Products	80%	76%
Furniture and Allied Products	97%	96%
Printed and Published Products	89%	87%
Foundries (not steel), Rubber and Non-metallic Products	75%	69%
Primary Metal (esp. steel) Products	92%	89%
Industrial Equipment	89%	84%
Gases, Fertilizer and Petrochemical - Refining and Manufacturing	87%	77%
Plastic Products	71%	62%
Other Manufacturing, Processing and Packaging Industries	90%	88%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Table 4.14
Proportion of Person-years worked accounted for by Employers with no Lost-Time or Disabling Injury Claims, by Manufacturing, Processing and Packaging Sub-Sector – Alberta: 2008

Proportion of person-years accounted for by employers	With no Lost-Time Claims	With no Disabling Injury Claims
Manufacturing, Processing and Packaging	**36%**	**24%**
Meat, Hides and Pelt Products	5%	4%
Clothing and Textile Products	71%	65%
Feed/Seed, Food and Beverage Products	18%	13%
Wood Products	22%	13%
Furniture and Allied Products	64%	63%
Printed and Published Products	43%	37%
Foundries (not steel), Rubber and Non-metallic Products	38%	17%
Primary Metal (esp. steel) Products	35%	23%
Industrial Equipment	41%	29%
Gases, Fertilizer and Petrochemical - Refining and Manufacturing	66%	29%
Plastic Products	29%	16%
Other Manufacturing, Processing and Packaging Industries	63%	52%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Table 4.15
Proportion of Employers with Lost-Time or Disabling Injury Claims, by Manufacturing, Processing and Packaging Sub-Sector – Alberta: 2008

Sub-Sector	1 Lost-Time Claim	2 to 5 Lost-Time Claims	6 to 20 Lost-Time Claims	Over 20 Lost-Time Claims
Meat, Hides and Pelt Products	34%	39%	18%	9%
Clothing and Textile Products	61%	39%	0%	0%
Feed/Seed, Food and Beverage Products	48%	40%	9%	2%
Wood Products	50%	38%	9%	2%
Furniture and Allied Products	80%	16%	5%	0%
Printed and Published Products	58%	26%	15%	0%
Foundries (not steel), Rubber and Non-metallic Products	46%	41%	13%	0%
Primary Metal (esp. steel) Products	53%	39%	8%	0%
Industrial Equipment	53%	43%	4%	0%
Gases, Fertilizer and Petrochemical - Refining and Manufacturing	53%	40%	7%	0%
Plastic Products	49%	42%	9%	0%
Other Manufacturing, Processing and Packaging Industries	62%	31%	7%	0%

Data Source: WCB Data, Prepared by Data Development and Evaluation

For employers who did submit lost-time claims, one sub-sector had proportion of employers submitting over six lost-time claims that was higher than 15%. This was the Meat, Hides and Pelt Products sub-sector (see Table 4.15). Nine of the sub-sectors had proportions of employers submitting over six disabling injury claims that were higher than 15%.

Table 4.15 (Continued)
Proportion of Employers with Lost-Time or Disabling Injury Claims, by Manufacturing, Processing and Packaging Sub-Sector – Alberta: 2008

Sub-Sector	1 Disabling Injury Claim	2 to 5 Disabling Injury Claims	6 to 20 Disabling Injury Claims	Over 20 Disabling Injury Claims
Meat, Hides and Pelt Products	30%	26%	18%	26%
Clothing and Textile Products	62%	33%	5%	0%
Feed/Seed, Food and Beverage Products	36%	33%	24%	6%
Wood Products	42%	35%	14%	9%
Furniture and Allied Products	76%	14%	8%	2%
Printed and Published Products	54%	30%	13%	3%
Foundries (not steel), Rubber and Non-metallic Products	36%	40%	20%	5%
Primary Metal (esp. steel) Products	42%	38%	15%	4%
Industrial Equipment	48%	33%	15%	4%
Gases, Fertilizer and Petrochemical - Refining and Manufacturing	48%	22%	30%	0%
Plastic Products	33%	43%	21%	3%
Other Manufacturing, Processing and Packaging Industries	53%	36%	10%	1%

Data Source: WCB Data, Prepared by Data Development and Evaluation

DEMOGRAPHICS OF INJURED WORKERS

Injured Worker Characteristics

In 2008, the Machinists, Metal Forming, Shaping and Erecting Occupations group had the highest proportion of lost-time claims and the highest proportion of disabling injuries in the Manufacturing, Processing and Packaging sector at 20.1% and 18.8%, respectively. The Trades Helpers, Construction, and Transportation Labourers and Related Occupations group had the largest difference between their proportion of lost-time claims and proportion of those in employment at 15.2% and 1.4%, indicating these workers were more likely to be injured than other occupational groups in the Manufacturing, Processing and Packaging sector. In contrast, Assemblers in Manufacturing accounted for 2.7% of lost-time claims, 2.5% of disabling injury claims, and 6.4% of those in employment (see Table 5.1).

Table 5.1
Lost-Time, Disabling Injury Claims and Employment by Selected Occupation Group — Alberta: 2008

Occupation Group	Lost-time Claims	Disabling Injury Claims	Employment
Machinists, Metal Forming, Shaping and Erecting Occupations	20.1%	18.8%	9.6%
Labourers in Processing, Manufacturing and Utilities	16.4%	17.1%	7.2%
Trades Helpers, Construction, and Transportation Labourers and Related Occupations	15.2%	14.9%	1.4%
Machine Operators in Manufacturing	11.4%	14.9%	15.4%
Clerical Occupations	4.7%	4.3%	8.5%
Construction Trades	5.6%	5.7%	2.8%
Assemblers in Manufacturing	2.7%	2.5%	6.4%
Transportation Equipment Operators and Related Workers, Excl. Labourers	5.1%	3.4%	1.7%
Sales & Service Occupations N.E.C.	4.3%	4.0%	1.7%

Data Source: WCB Data, Prepared by Data Development and Evaluation; Statistics Canada, Labour Force Survey (Microdata Files)

In 2008, workers aged 15 to 34 years accounted for more than 40% of all lost-time and disabling injury claims. Young workers aged between 15 and 24 accounted for 16.5% of lost-time claims and 18.9% of disabling injury claims, while representing only 12.8% of those in employment[5], indicating that young workers are more likely to be injured on the job in the Manufacturing, Processing and Packaging sector than are older workers[6] (see Table 5.2).

Table 5.2
Lost-Time and Disabling Injury Claims by Age — Alberta: 2007-2008

Age	2007				2008			
	Lost-Time Claims	%	Disabling Injury Claims	%	Lost-Time Claims	%	Disabling Injury Claims	%
15-19 Years	311	5.7%	745	5.7%	**207**	**4.7%**	**562**	**5.0%**
20-24 Years	684	12.5%	1,989	15.3%	**513**	**11.8%**	**1,562**	**13.9%**
25-34 Years	1,337	24.4%	3,554	27.4%	**1,043**	**23.9%**	**3,146**	**28.0%**
35-44 Years	1,449	26.4%	3,216	24.8%	**1,127**	**25.8%**	**2,793**	**24.8%**
45-54 Years	1,161	21.1%	2,492	19.2%	**1,006**	**23.1%**	**2,267**	**20.2%**
55-64 Years	471	8.6%	859	6.6%	**402**	**9.2%**	**833**	**7.4%**
65+ Years	75	1.4%	106	0.8%	**62**	**1.4%**	**81**	**0.7%**
Unspecified	2	N/A	2	N/A	**0**	**N/A**	**1**	**N/A**
Total	**5,490**	**100.0%**	**12,963**	**100.0%**	**4,360**	**100.0%**	**11,245**	**100.0%**

Data Source: WCB Data, Prepared by Data Development and Evaluation

In the Manufacturing, Processing and Packaging sector, the majority of claims were from men. In 2008, 82.5% of lost-time and 83.5% of disabling injury claims involved men, while they comprised 74.7% of those employed (see Table 5.3)[7].

Table 5.3
Lost-Time and Disabling Injury Claims by Gender — Alberta: 2007-2008

Gender	2007				2008			
	Lost-Time Claims	%	Disabling Injury Claims	%	Lost-Time Claims	%	Disabling Injury Claims	%
Women	954	17.5%	2,168	16.9%	**764**	**17.5%**	**1,842**	**16.5%**
Men	4,482	82.5%	10,675	83.1%	**3,596**	**82.5%**	**9,345**	**83.5%**
Unspecified	54	N/A	120	N/A	**0**	**N/A**	**58**	**N/A**
Total	**5,490**	**100.0%**	**12,963**	**100.0%**	**4,360**	**100.0%**	**11,245**	**100.0%**

Data Source: WCB Data, Prepared by Data Development and Evaluation

[5] Statistics Canada's Labour Force Survey (2008 Historical Review).
[6] See the *Occupational Injuries and Diseases in Alberta Young Workers* publication.
[7] Statistics Canada's Labour Force Survey (2008 Historical Review).

INJURY AND DISEASE ANALYSIS

Overexertion was the most common cause for lost-time claims in the Manufacturing, Processing and Packaging sector. Sprains, strains and tears continued to be the leading nature of injury with the trunk being the most commonly injured body part.

Nature of Injury or Disease

The nature of injury is used to identify the physical characteristics of the injury or disease. In 2008, 92.8% of lost-time and 94.2% of disabling injury claims were caused by traumatic injuries and disorders. The two most common traumatic injuries and disorders were sprains, strains and tears, and surface wounds and bruises (see Table 6.1).

Note 6.1
Throughout this section, the classifications used are based on the Canadian Standards Association (CSA) standards for categorizing occupational injury and disease information.

Compared to the rest of the province, the Manufacturing, Processing and Packaging sector had higher proportions of lost-time and disabling injury claims in most nature of injury categories[8]. For lost-time claims the nature of injury category open wounds was 1.8 times higher than the average for all sectors. The number of disabling injury claims for this category was 2.3 times higher. Systemic diseases and disorders, and surface wounds and bruises displayed high lost-time claim proportions, at 1.7 and 1.4 times the average for all sectors, and high disabling injury claim proportions, 2.1 and 1.8 times the average for all sectors in the province.

Note 6.2
The CSA standard is designed so that Nature of Injury and Part of Body categories are directly linked when classifying injuries. This is also true for the relationship between the Source of Injury and Type of Event categories.

[8] The proportion or number of times higher or lower compares the Manufacturing, Processing and Packaging sector's claim rate and proportion of injuries by each injury type, against the average claim rate and injury proportion for all sectors in the province. A value equal to 1 indicates an equal probability or likelihood to the average. A value higher than 1 indicates an increased likelihood of this type of injury occurring, and a value less than one indicates a lower likelihood. See Appendix A for calculation details.

Table 6.1
Nature of Injury or Disease — Alberta: 2008

Nature of Injury	Lost-Time Claims	%	Disabling Injury claims	%
Traumatic Injuries and Disorders	**4,045**	**92.8%**	**10,588**	**94.2%**
Sprains, Strains and Tears	1,788	41.0%	4,736	42.1%
Surface Wounds and Bruises	640	14.7%	1,721	15.3%
Open Wounds	544	12.5%	1,692	15.0%
Fractures and Dislocations	378	8.7%	684	6.1%
Burns	108	2.5%	246	2.2%
Other Traumatic Injuries and Disorders	587	13.5%	1,509	13.4%
Systemic Diseases and Disorders	**291**	**6.7%**	**575**	**5.1%**
Neoplasms, Tumors and Cancer	**2**	**<0.1%**	**2**	**<0.1%**
Infectious and Parasitic Disorders	**3**	**<0.1%**	**4**	**<0.1%**
Symptoms, Signs and Ill-Defined Conditions	**7**	**0.2%**	**21**	**0.2%**
Multiple Diseases, Conditions and Disorders	**0**	**0.0%**	**0**	**0.0%**
Other Diseases, Conditions and Disorders	**5**	**0.1%**	**7**	**0.1%**
Nature of Injury - Unknown	**7**	**0.2%**	**48**	**0.4%**
Total	**4,360**	**100.0%**	**11,245**	**100.0%**

Data Source: WCB Data, Prepared by Data Development and Evaluation

Part of Body Injured

In 2008, the back (including spine and spinal cord) was the most commonly injured body part, accounting for 21.4% of lost-time claims in the Manufacturing, Processing and Packaging sector and 18.6% of disabling injury claims. This was followed by injuries to the fingers and fingernails, accounting for 12.9% and 16.9% of lost-time claims and disabling injury claims, and other trunk, 12.7% and 13.2% respectively (see Table 6.2).

Compared to the average for all sectors in the province, the Manufacturing, Processing and Packaging sector had higher proportions[9] of lost-time claims in most injury categories. For lost-time claims, the eyes displayed the highest proportion, 2.5 times higher in the Manufacturing, Processing and Packaging sector than the average. Injuries to fingers or fingernails and to the wrists and hands displayed proportions for lost-time claims that were 2.0 and 1.4 times higher than the average for all sectors in the province. For disabling injury claims, these body parts had proportions 2.6 times, 2.5 times and 2.0 times higher than the average respectively.

[9] The proportion or number of times higher or lower compares the Manufacturing, Processing and Packaging sector's claim rate and proportion of injuries by each injury type, against the average claim rate and injury proportion for all sectors in the province. A value equal to 1 indicates an equal probability or likelihood to the average. A value higher than 1 indicates an increased likelihood of this type of injury occurring, and a value less than one indicates a lower likelihood. See Appendix A for calculation details.

Table 6.2
Part of Body Injured — Alberta: 2008

Part of Body Injured	Lost-Time Claims	%	Disabling Injury Claims	%
Trunk	**1,489**	**34.2%**	**3,573**	**31.8%**
Back, Including Spine, Spinal Cord	935	21.4%	2,086	18.6%
Other Trunk	554	12.7%	1,487	13.2%
Upper Extremities	**1,296**	**29.7%**	**4,373**	**38.9%**
Finger(s), Fingernail(s)	561	12.9%	1,906	16.9%
Wrist(s) and Hand(s) Except Finger(s)	448	10.3%	1,503	13.4%
Other Upper Extremities	287	6.6%	964	8.6%
Lower Extremities	**773**	**17.7%**	**1,797**	**16.0%**
Leg(s)	383	8.8%	875	7.8%
Ankle(s) and Foot (Feet) Except Toes	360	8.3%	859	7.6%
Other Lower Extremities	30	0.7%	63	0.6%
Head	**498**	**11.4%**	**872**	**7.8%**
Eye(s)	254	5.8%	498	4.4%
Other Head Parts	244	5.6%	374	3.3%
Multiple Body Parts	**200**	**4.6%**	**398**	**3.5%**
Neck, Including Throat	**77**	**1.8%**	**195**	**1.7%**
Body Systems	**25**	**0.6%**	**33**	**0.3%**
Part of Body - Unknown	**1**	**<0.1%**	**2**	**<0.1%**
Other Body Parts	**1**	**<0.1%**	**2**	**<0.1%**
Total	**4,360**	**100.0%**	**11,245**	**100.0%**

Data Source: WCB Data, Prepared by Data Development and Evaluation

Source of Injury or Disease

The source of injury or disease describes the object or substance that came into contact with the worker and resulted in an injury or disease. In 2008, parts and materials accounted for 20.8% of lost-time claims and 21.1% of disabling injury claims. This was followed by persons, plants, animals and minerals at 18.2% and 22.7% respectively (see Table 6.3).

Compared to the average for all sectors in the province, the Manufacturing, Processing and Packaging sector had higher proportions[10] of lost-time claims in most injury categories. For injury claims, the injury category hand tools - powered displayed the highest proportion, 2.5 times higher than the average for all sectors for lost-time claims and 3.0 times higher for disabling injury claims. This was followed by parts and materials, 2.2 times higher for lost-time claims and 2.3 times higher for disabling injury claims. Machinery displayed proportions that were 2.1 and 2.3 times higher for lost-time claims and disabling injury claims than the average for all sectors in the province.

[10] The proportion or number of times higher or lower compares Manufacturing, Processing and Packaging sector's claim rate and proportion of injuries by each injury type, against the average claim rate and injury proportion for all sectors in the province. A value equal to 1 indicates an equal probability or likelihood to the average. A value higher than 1 indicates an increased likelihood of this type of injury occurring, and a value less than one indicates a lower likelihood. See Appendix A for calculation details.

Table 6.3
Source of Injury or Disease Alberta: 2008

Source of Injury	Lost-Time Claims	%	Disabling Injury Claims	%
Persons, Plants, Animals and Minerals	**793**	**18.2%**	**2,557**	**22.7%**
Person-Injured or Ill Worker	704	16.1%	2,284	20.3%
Minerals - Metallic or Nonmetallic (except fuel)	14	0.3%	33	0.3%
Person-Other Than Injured or Ill Worker*	13	0.3%	20	0.2%
Other Persons, Plants, Animals & Minerals	62	1.4%	220	2.0%
Parts and Materials	**906**	**20.8%**	**2,371**	**21.1%**
Structures and Surfaces	**596**	**13.7%**	**1,207**	**10.7%**
Containers**	**399**	**9.2%**	**912**	**8.1%**
Tools, Instruments and Equipment	**433**	**9.9%**	**1,334**	**11.9%**
Hand Tools - Nonpowered	181	4.2%	683	6.1%
Hand Tools - Powered	75	1.7%	227	2.0%
Other Tools and Equipments	177	4.1%	424	3.8%
Machinery	**391**	**9.0%**	**811**	**7.2%**
Vehicles	**189**	**4.3%**	**368**	**3.3%**
Furniture and Fixtures	**82**	**1.9%**	**211**	**1.9%**
Chemicals and Chemical Products	**75**	**1.7%**	**137**	**1.2%**
Other Sources	**368**	**8.4%**	**751**	**6.7%**
Source of Injury - Unknown	**128**	**2.9%**	**586**	**5.2%**
Total	**4,360**	**100.0%**	**11,245**	**100.0%**

* Person – other than injured or ill worker: classifies workplace injuries or illnesses inflicted by family members as well as non-family relations, including co-workers, former co-workers, and patients.
** Containers: classifies receptacles that are commonly used to hold, store or carry materials (examples: dishes, cups and glasses, luggage, etc.).

Data Source: WCB Data, Prepared by Data Development and Evaluation

Type of Event or Exposure

The type of event or exposure describes the incident or event that occurred at the time of the exposure that directly resulted in the injury or disease. The two most common types of event or exposure comprising over three-quarters of the total lost-time and disabling injury claims in the Manufacturing, Processing and Packaging sector in 2008 were bodily reaction and exertion, and contact with objects and equipment (see Table 6.4). Bodily reaction accounted for 38.2% of the lost-time claims and 41.5% of the disabling injury claims. Contact with objects and equipment accounted for 38.0% and 39.8% respectively.

Lost-time claims caused by rubs or abrasions had the highest proportion[11] at 2.5 times the average for all sectors in the province. For disabling injury claims it was 2.4 times higher in the Manufacturing, Processing and Packaging sector. This was followed by caught in object with proportions 2.4 times higher for lost-time claims and 2.5 times higher for disabling injury claims. Repetitive motion injuries were 1.8 times higher for lost-time claims and 3.0 times higher for disabling injury claims than the average for all sectors of the province.

[11] The proportion or number of times higher or lower compares the Manufacturing, Processing and Packaging sector's claim rate and proportion of injuries by each injury type, against the average claim rate and injury proportion for all sectors in the province. A value equal to 1 indicates an equal probability or likelihood to the average. A value higher than 1 indicates an increased likelihood of this type of injury occurring, and a value less than one indicates a lower likelihood. See Appendix A for calculation details.

Table 6.4
Type of Event or Exposure — Alberta: 2008

Type of Event or Exposure	Lost-Time Claims	%	Disabling Injuries	%
Bodily Reaction or Exertion	**1,665**	**38.2%**	**4,667**	**41.5%**
Overexertion	897	20.6%	2,216	19.7%
Bodily Reaction*	420	9.6%	1,159	10.3%
Repetitive Motion	244	5.6%	988	8.8%
Other Bodily Reaction/Exertion	104	2.4%	304	2.7%
Contact with Objects or Equipment	**1,656**	**38.0%**	**4,479**	**39.8%**
Struck by Object	782	17.9%	2,104	18.7%
Caught in Object	388	8.9%	1,047	9.3%
Struck against Object	250	5.7%	743	6.6%
Rubbed or Abraded	129	3.0%	275	2.4%
Other Contact with Object/Equipment	107	2.5%	310	2.8%
Falls	**591**	**13.6%**	**1,180**	**10.5%**
Fall on Same Level	373	8.6%	770	6.8%
Fall to Lower Level	172	3.9%	313	2.8%
Other Falls	46	1.1%	97	0.9%
Exposure to Harmful Substances	**263**	**6.0%**	**471**	**4.2%**
Transportation Accidents	**99**	**2.3%**	**161**	**1.4%**
Assaults and Violent Acts	**18**	**0.4%**	**36**	**0.3%**
Assaults and Violent Acts by Person(s)	11	0.3%	19	0.2%
Other Assaults and Violent Acts	7	0.2%	17	0.2%
Fires and Explosions	**8**	**0.2%**	**14**	**0.1%**
Other Events or Exposures	**0**	**0.0%**	**1**	**<0.1%**
Type of Event - Unknown	**60**	**1.4%**	**236**	**2.1%**
Total	**4,360**	**100.0%**	**11,245**	**100.0%**

* Bodily reaction: injuries or illnesses resulting from a single incident of free bodily motion which imposed stress or strain on some part of the body.
Data Source: WCB Data, Prepared by Data Development and Evaluation

Duration of Disability

Duration of disability[12] is intended to reflect the severity of the effects of occupational injury and disease as reflected by the number of days off work. The efforts of employers to introduce modified work programs to integrate injured workers more quickly back into the workforce also have a positive impact on workdays lost.

In 2008, lost-time claims with duration of disability between one and ten days accounted for 58.5% of all claims, compared with 55.2% for all sectors in the province. Lost-time claims resulting in 31 days or more lost accounted for 17.1% of all lost-time claims in the Manufacturing, Processing and Packaging sector (see Table 6.5). For all sectors in the province, 20.5% of claimants were unable to work for 31 days or more.

Table 6.5
Duration of Disability — Alberta: 2008

Duration of Disability	% of Manufacturing, Processing and Packaging Sector's Lost-Time Claims	% of Lost-Time Claims in the Province
1-5 Days	45.4%	40.9%
6-10 Days	13.1%	14.3%
11-15 Days	7.5%	7.6%
16-20 Days	4.5%	5.0%
21-30 Days	6.2%	6.7%
31-40 Days	4.2%	4.7%
41-50 Days	2.9%	3.2%
51 Days or More	10.0%	12.6%
Unspecified	6.3%	4.8%

Data Source: WCB Data, Prepared by Data Development and Evaluation

[12] The duration of disability refers to the length of time, in days, for which the worker receives wage compensation from the WCB.

OCCUPATIONAL FATALITIES

In 2008, the WCB accepted 20 fatalities in the Manufacturing, Processing and Packaging industries, accounting for 12.0% of all 166 fatalities in the province.

A WCB accepted occupational fatality is defined as the death of a worker resulting from a work-related incident or exposure which has been accepted by the WCB for compensation. The WCB classifies occupational fatalities into three general types:

Motor Vehicle Incidents

Motor vehicle incidents typically involve non-industrial vehicles operating on public roads in which the fatally injured worker was either the driver or a passenger. This type of occupational fatality also includes cases involving aircraft, train, helicopter and water vehicle crashes. In 2008, four Manufacturing, Processing and Packaging fatalities accepted by WCB were motor vehicle incidents (see Table 7.1).

Workplace Incidents

Workplace incidents consisted of cases in which the worker died at a worksite or as a result of injuries sustained at a worksite. This is the type of fatality that E&I typically investigates. In 2008, two of the Manufacturing, Processing and Packaging fatalities accepted by WCB were workplace incidents (see Table 7.1).

Latent Workplace and Motor Vehicle Fatalities

Latent fatalities consist of workers who were involved in a workplace incident or exposure, or a motor vehicle incident that did not become a fatality until a much later date, often years later. These incidents were classified as occupational diseases. From 2007, these incidents will be separated out and included with either motor vehicle or workplace incident categories in accordance to their original injury.

Usually, other contributing factors cause a latent fatality, although these contributing factors are the result of the initial injury or exposure. A motor vehicle incident, where a worker received leg injuries requiring surgery is a good example of this. Complications during the surgery result in a blood clot causing a fatal stroke. Thus, the injury is classified latent because the original injury caused the requirement for surgery. In 2008, there were no latent fatalities in the Manufacturing, Processing and Packaging industries.

Occupational Disease

Occupational disease fatalities consist mostly of recognized occupational disease, that is, disease known to be primarily or exclusively work-related such as asbestosis and coal workers' pneumoconiosis. This category also includes heart attacks suffered on the job. Occupational diseases are frequently diagnosed several years after the initial or crucial

exposure to the toxic substance, and in such cases, it is difficult to determine when the fatal exposure occurred. *The occupational disease category, therefore, should not be interpreted to reflect present worksite hazardous conditions or exposures.*

Each year the WCB accepts some occupational fatality claims for compensation. Occupational fatality claims that were accepted in a particular year may include fatalities from prior years. In 2008, 14 of the fatalities accepted by the WCB in the Manufacturing, Processing and Packaging industries were occupational disease incidents (see Table 7.1).

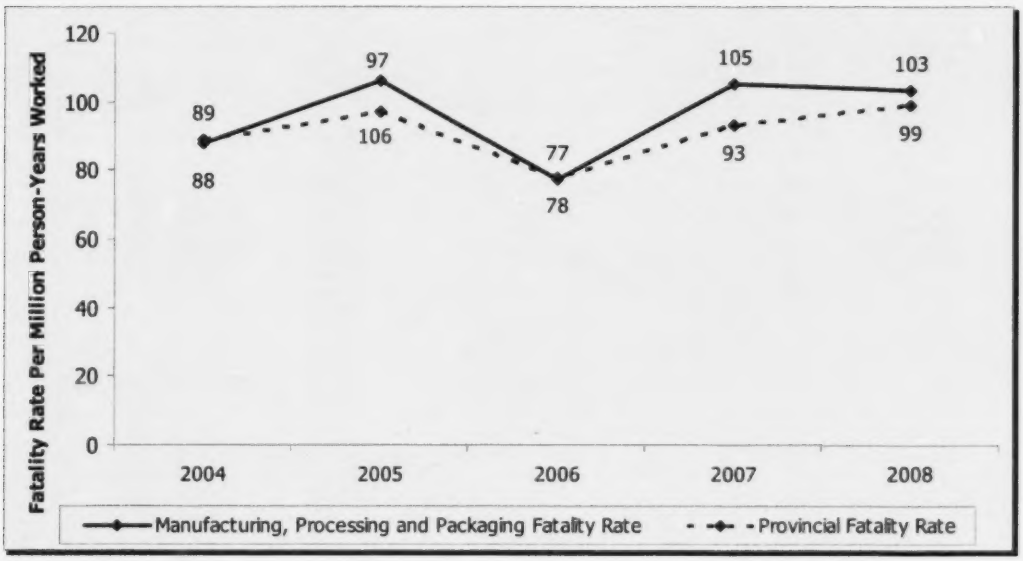
Table 7.1
Types of Occupational Fatalities Accepted by the WCB – Alberta: 2004 - 2008

Year	Motor Vehicle Incident		Workplace Incident		Occupational Disease		Total
	Number of Fatalities	%	Number of Fatalities	%	Number of Fatalities	%	Number of Fatalities
2004	2	12.5%	7	43.8%	7	50.0%	16
2005	3	15.0%	8	40.0%	9	50.0%	20
2006	2	12.5%	5	31.3%	9	56.3%	16
2007	3	14.3%	4	19.0%	14	66.7%	21
2008	**4**	**20.0%**	**2**	**10.0%**	**14**	**70.0%**	**20**
Total	14	15.1%	26	28.0%	53	57.0%	93

Data Source: WCB Data, Prepared by Data Development and Evaluation

The fatality rate is calculated by dividing the number of accepted fatalities in the year by the number of person-years worked in that year. The result is expressed as "per million person-years worked." The 2008 fatality rate decreased by 2.2% from 105 per million person-years worked in 2007 to 103 per million person-years worked in 2008 (see Chart 7.1).

Chart 7.1
Fatality Rate[13] in the Manufacturing, Processing and Packaging Sector: 2004-2008



Data Source: WCB Data, Prepared by Data Development and Evaluation

Between 2004 and 2008, the WCB accepted 93 fatalities in the Manufacturing, Processing and Packaging industries. The Primary Metal (especially Steel) Products sub-sector had the most with 39 fatalities, accounting for 41.9% of all the fatalities in the Manufacturing, Processing and Packaging sector (see Table 7.2).

[13] Estimates are based upon information provided by the WCB. Fatalities occurring under Government of Canada jurisdiction are excluded from the calculation of the fatality rates.

Table 7.2
Manufacturing, Processing and Packaging Occupational Fatalities Accepted by the WCB by Sub-Sector – Alberta: 2004 - 2008

Sub-Sector	2004	2005	2006	2007	2008	Number of Fatalities	%
Feed/Seed, Food and Beverage Products	1	1	1	2	**2**	7	7.5%
Foundries (not steel), Rubber and Non-metallic Products	2	2	1	3	**0**	8	8.6%
Furniture and Allied Products	0	1	0	0	**1**	2	2.2%
Gases, Fertilizer and Petrochemical Refining and Manufacturing	3	2	1	3	**8**	17	18.3%
Industrial Equipment	1	1	1	1	**1**	5	5.4%
Meat, Hides and Pelt Products	0	2	1	0	**0**	3	3.2%
Other Manufacturing, Processing and Packaging Industries	1	0	1	0	**0**	2	2.2%
Primary Metal (esp. steel) Products	8	8	9	8	**6**	39	41.9%
Printed and Published Products	0	0	0	1	**1**	2	2.2%
Wood Products	0	3	1	3	**1**	8	8.6%
Manufacturing, Processing and Packaging Sector	**16**	**20**	**16**	**21**	**20**	**93**	**100.0%**

Data Source: WCB Data, Prepared by Data Development and Evaluation

CERTIFICATE OF RECOGNITION

A Certificate of Recognition (COR) is given to employers who develop health and safety programs that meet established standards. Certificates are jointly issued by Certifying Partners and E&I[14].

In 2008, 5.8% of employers in the Manufacturing, Processing and Packaging sector were COR holders. These employers accounted for 50.0% of all person-years worked in the Manufacturing, Processing and Packaging sector. The Foundries (not steel), Rubber and Non-metallic Products sub-sector had the highest proportion with 19.2% of employers in this sub-sector holding a valid COR in 2008, covering 69.9% of person-years worked in this sub-sector (see Table 8.1).

Table 8.1
Employers With Valid COR — Alberta: 2008

Sub-Sector	Number of Certified Employers	Total Number of Employers	% of Total Employers Certified	% of Total Person-Years Certified
Manufacturing, Processing and Packaging Sector	**872**	**14,946**	**5.8%**	**50.0%**
Clothing and Textile Products	7	439	1.6%	6.9%
Feed/Seed, Food and Beverage Products	35	607	5.8%	45.8%
Foundries (not steel), Rubber and Non-metallic Products	69	359	19.2%	69.9%
Furniture and Allied Products	8	1,313	0.6%	19.1%
Gases, Fertilizer and Petrochemical - Refining and Manufacturing	22	119	18.5%	48.9%
Industrial Equipment	69	456	15.1%	50.4%
Meat, Hides and Pelt Products	17	149	11.4%	76.8%
Plastic Products	20	154	13.0%	13.0%
Primary Metal (esp. steel) Products	489	8,860	5.5%	5.5%
Printed and Published Products	3	474	0.6%	0.6%
Wood Products	105	1,109	9.5%	9.5%
Other Manufacturing, Processign and Packaging	28	907	3.1%	3.1%

Data Source: WCB Data, Prepared by Data Development and Evaluation

[14] For more information on the COR program visit http://www.employment.alberta.ca/SFW/334.html

In the Manufacturing, Processing and Packaging sector, the lost-time claim rate for COR holders was 2.06 per 100 person-years worked in 2008, while the rate for non-COR holders was 2.42. For disabling injury rates, COR holders had a rate of 7.31 per 100 person-years worked, while the rate for non-COR holders was 4.25 (see Table 8.2).

A low lost-time claim rate and high disabling injury rate can be indicative of proficient claims management. However, it may also be a reflection of larger employers having greater capacity to offer modified duties to injured workers than smaller employers.

Comparing COR holders against all non-COR holders provides useful information about each group, although it does not compare like-with-like. A COR is given to employers who develop health and safety programs that meet established standards, with this group seeing continued improvement in their lost-time claim rates. Some non-COR holders have good programs in place above this standard, whereas others do not. This makes evaluating improving health and safety trends less clear for this group.

The two groups also differ significantly in employer structure and size. COR holders account for 5.8% of employers in the Manufacturing, Processing and Packaging sector (see Table 8.1) but 50.0% of the person-years worked. Analysis by employer size for all sectors of the province[15] show smaller employers tend to have better health and safety performance than medium-sized and large employers. For the Manufacturing, Processing and Packaging sector a different pattern is displayed with employers between 20 and 39 person-years and employers between 10 and 19 person-years worked displaying the highest lost-time claim rates (see Table 3.2). The pattern of claim rates by employer size differs depending on the measure. Large employers have the lowest lost-time claim rate and highest disabling injury rate.

Table 8.2
Lost-Time Claim and Disabling Injury Rates for Manufacturing, Processing and Packaging COR Holders — Alberta: 2007-2008

Employer	Year	Number of Accounts	Person-Years	Lost-Time Claims	Disabling Injury Claims	Lost-Time Claim Rate	Disabling Injury Rate	Change in Lost-Time Claim Rate	Change in Disabling Injury Rate
COR	2007	857	97,231	2,617	8,171	2.69	8.40	-23.4%	-13.0%
	2008	872	97,330	2,006	7,114	2.06	7.31		
Non-COR	2007	13,945	102,126	2,873	4,792	2.81	4.69	-13.9%	-9.4%
	2008	14,074	97,241	2,354	4,131	2.42	4.25		

Data Source: WCB Data, Prepared Data Development and Evaluation

[15] See the *Occupational Injury and Diseases in Alberta Summary* publication 2008 http://employment.alberta.ca/129.html

REFERENCES

Alberta Employment and Immigration. "Occupational Injuries and Diseases in Alberta 2008 Summary"

Canadian Standards Association. Z795-03: Coding of Work Injury or Disease Information, June 2003.

de Léséleuc, S., "Criminal Victimization in the Workplace: 2004," Statistics Canada, February 2007.

International Labour Organization, "Decent Work - Safe Work, ILO Introductory Report to the XVIIth World Congress on Safety and Health at Work", September 2005.
http://www.ilo.org/global/Themes/Safety_and_Health_at_Work/lang--en/docName--WCMS_067260/index.html

International Labour Organization. "Facts on Safety and Health at Work issues." April 2009. http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_105146.pdf

International Labour Organization. "Safety in Numbers – pointers for a global safety culture at work." 2003.
http://www.ilo.org/public/english/protection/safework/worldday/report_eng.pdf

Statistics Canada. "Guide to the Labour Force Survey" 2009.

The Workers' Compensation Board - Alberta. "Rate and Industry Description Manual".

The Workers' Compensation Board. "2009 Premium Rate Manual".

APPENDIX A: TERMS, DEFINITIONS AND FORMULAS

Lost-Time Claim

A lost-time claim (LTC) is a claim for an occupational injury or disease that causes the worker to have time away from work beyond the day of injury. Included are claims receiving reimbursement of full or partial lost wages due to occupational illness or injury, or payment for permanent loss of function.

Modified Work Claim

A modified work claim is a claim for an occupational injury or disease where a worker had their normal work duties altered to enable them to remain working without losing time from work. Also included are claims where injured workers are helped back into the workplace with modified duties after time lost due to injury or disease.

Disabling Injury Claim

Disabling injury (DI) claims combine both the lost-time and modified work concepts to produce an overall figure where an occupational injury or disease disables the worker causing either time-lost from work or for their normal work duties to be modified.

Person-Years Worked

Person-years worked are estimates calculated from wage and payroll data provided by account holders to the WCB. Alberta Employment and Immigration uses data to estimate an average industry wage, and uses the average industry wage and employer payroll data to estimate person-years worked for each employer and each industry. One person-year is equivalent to one full-time worker working for one year, and can be assumed to equal 2,000 hours worked.

Lost-Time Claim Rate

The lost-time claim rate is calculated by dividing the number of lost-time claims by the person-year estimate, and multiplying the result by 100. The lost-time claim rate represents the probability or risk of an injury or disease to a worker during a period of one-year work, which will result in time lost from work. Comparisons of lost-time claim rates between industries, or between years, can be used to indicate increases, decreases, or differences in this risk.

$$\text{LTC Rate} = \frac{\text{Number of LTC's}}{\text{Person-years worked}} \times 100$$

Disabling Injury Rate

The disabling injury rate is calculated by dividing the number of disabling injury claims by the person-year estimates, and multiplying the result by 100. The disabling injury rate represents the probability or risk of a disabling injury or disease to a worker during a period of one year of work. The disabling injury rate is similar to the LTC rate although it covers a broader range of injuries, including those that are less severe in nature (do not require time away from work). The rate represents the number of claims per 100 person-years worked and includes claims made for both lost-time and modified work.

$$\text{Disabling Injury Rate} = \frac{\text{Number of DI's}}{\text{Person-years worked}} \times 100$$

Duration (Days lost)

The duration of disability is the number of days following the injury or disease for which the worker was disabled and unable to perform normal work duties. This information is obtained for this report from data on compensation days paid on each claim from the WCB. Alberta Employment and Immigration obtains these data on March 31 of the year following the claim year, and does not update the information, even though many injured workers continue to be disabled beyond this date. As a result, the duration information reported here underestimates the true impact of lost-time injury and disease.

Duration Rate

The duration rate is calculated by dividing the number of workdays lost (disability days) by the person-year estimate, and multiplying by 100. The result is expressed as days lost per 100 person-years worked, and indicates, in part, the economic impact of occupational injury and disease. Duration rates are not recommended as reliable indicators of full economic cost. In addition, readers are warned that duration rates are highly unstable when based on only a few lost-time claims; it is recommended that the duration rate not be calculated based upon fewer than 30 lost-time claims.

$$\text{Duration Rate} = \frac{\text{Disability Days}}{\text{Person-years worked}} \times 100$$

Industry Coverage

About 80% of employed persons in Alberta are covered by WCB. This report focuses on all industry activity in Alberta covered by the WCB and by the provincial legislation for occupational health and safety. Most industry sectors are included but notable exceptions consist of the Government of Canada, and parts of the agriculture and finance sectors. Several professional groups (i.e. the teaching and medical professions) are also excluded as are some industries where WCB coverage is not compulsory.

WCB Accepted Fatality

An occupational fatality is the death of a worker which resulted from a work-related incident or exposure and which has been accepted by the WCB for compensation. A fatality is counted in the year it is accepted.

Fatality Rate

The fatality rate is calculated by dividing the number of accepted fatalities by the person-years worked estimate and multiplying the result by one million. The result is expressed as fatalities per million person-years worked. Fatalities that are found under the jurisdiction of the Government of Canada are excluded before the calculation of the fatality rate.

$$\text{Fatality Rate} = \frac{\text{Number of Fatalities}}{\text{Person-years worked}} \times 1{,}000{,}000$$

Number of Times Higher/Lower than the Provincial Average

The number of times higher/lower than the provincial average is used to compare the performance of the industries with the province regarding specific injury or disease. A number less than one indicates that the injury of the industries is lower than the provincial average; if equal to one it indicates the injury of the industries is the same as the provincial average and a number greater than one indicates that the injury of the industries is higher than the provincial average.

$$\frac{\text{Per cent of Total Claims for the Industries} \times \text{Industries' LTC Rate}}{\text{Per cent of Total Claims for the Province} \times \text{Provincial LTC Rate}}$$

Where:

$$\text{Per cent of Total Claims for the Industries} = \frac{\text{Number of LTCs for the Industries (e.g. back injury)}}{\text{Total LTCs for the Industries}} \times 100$$

$$\text{Per cent of Total Claims for the Province} = \frac{\text{Number of LTCs for the Province (e.g. back injury)}}{\text{Total LTCs for the Province}} \times 100$$

Labour Force Survey

The Labour Force Survey (LFS) is a household survey carried out monthly by Statistics Canada. The objectives of the LFS have been to divide the working-age population into three mutually exclusive classifications - employed, unemployed, and not in the labour force - and to provide descriptive and explanatory data on each of these categories. Data from the survey provide information on major labour market trends such as shifts in employment across industrial sectors, hours worked, labour force participation and unemployment rates.

For the most part, annual LFS data has been analyzed alongside injury and disease information to aid the understanding of injury risk or frequency by worker type. The LFS uses a different industry classification from WCB, although there are similarities in structure. Where possible, the two data sources are used comparably and proportions (of totals) have been used to evaluate information generated from both sources. Using proportions attempts to overcome obvious distortions in the numbers in employment from both sources, although the impact on the proportions from industry coverage differences is unclear. In certain instances, monthly LFS micro-data files have been combined and used to produce proportion estimates for the whole year for particular sub-groups of the population.

For further information on the LFS, please see
http://www.employment.alberta.ca/BI/2599.html

APPENDIX B: MANUFACTURING, PROCESSING AND PACKAGING INDUSTRIES WCB CODES

1. Meat, Hides and Pelt Products

01103 – Poultry Loading Services
10100 – Meat Processing
10104 – Rendering Plants
17200 – Tanneries

2. Clothing and Textile Products

17900 – Leather Goods – Manufacturing/Repair
21300 – Rope/Carpet – Manufacturing/Repair
22900 – Crests/Pennants – Manufacturing/Repair
22901 – Drapes/Linens – Manufacturing/Repair/Installation
24900 – Wearing Apparel – Manufacturing/Repair

3. Feed/Seed, Food and Beverage Products

02101 – Seed Cleaning Plants
02112 – Egg Grading
10500 – Dairy Products Processing
11202 – Fruit Juice Processing
12301 – Feed Mills
12400 – Flour Mills
12900 – Bakeries
13100 – Food Processing – Miscellaneous
13101 – Candy Manufacturing
13300 – Beet Sugar Processing
13500 – Vegetable Oils/Yeast Manufacturing
13900 – Malt Manufacturing
13904 – Pasta Manufacturing
13905 – Vegetables Process/Grade
14100 – Soft Drinks/Water/Ice – Manufacturing
14300 – Liquor/Wine – Manufacturing
14500 – Breweries
37402 – Medicine/Vitamin Manufacturing

4. Wood Products

25100 – Saw Mills/Planing Mills
25401 – Wood Products – Manufacturing
25900 – Peel/Point – Posts
25901 – Treating of Timber
27102 – Pulp Mills
27103 – Panelboard – Manufacturing

5. Furniture and Allied Products

26101 – Upholstered Furniture – Manufacturing/Repair
26104 – Furniture Refinishing
42147 – Finishing Carpentry

6. Printed and Published Products

27402 – Envelope Manufacturing
28600 – Printing/Book Binding
28800 – Publish without Printing
28900 – Publish with Printing
86202 – Newspaper/Flyer Distribution
89301 – Electronic Print/Photofinishing

7. Foundries (not Steel), Rubber and Non-metallic Products

16901 – Tires/Rubber Products – Manufacturing
27200 – Asphalt Roofing Products – Manufacturing
29700 – Foundry – Non-ferrous
34100 – Pre-mixed Cement – Manufacturing
34500 – Gypsum Board – Manufacturing
34700 – Concrete Products – Manufacturing
34702 – Artificial Stone Products – Manufacturing
34800 – Transit Mix Operations
35200 – Clay Bricks – Manufacturing
35401 – Fibreglass Insulation – Manufacturing
38500 – Fibreglass Reinforced Products – Manufacturing

8. Primary Metal (esp. Steel) Products

26401 – Metal Furniture Manufacturing
29100 – Steel Manufacturing – excluding Foundries
29102 – Foundries, Iron and Steel
29200 – Steel Pipe Manufacturing
30100 – Steel/Metal Fabrication
30101 – Heat Treating/Stress Relieving
30403 – Metal/Porcelain Products – Coating
30407 – Pipe Cleaning/Coating
30412 – Sheet Metal Shops
30700 – Heat/Cooling Equipment Manufacturing
30801 – Machining
33602 – Switchboard/Electrical Panel – Manufacturing
33606 – Industrial Electric Equipment – Manufacturing
62500 – Steel Service Centre – No Salvage
62700 – Scrap/Salvage Dealers
89401 – Welding

9. Industrial Equipment

16902 – Industrial Belting – Installation/Service
38100 – Instrumentation – Manufacturing

62304 – Compressors/Power Unit – Manufacturing

10. Gases, Fertilizer and Petrochemical – Refining and Manufacturing

36500 – Refining – Crude/Used Oil
37201 – Fertilizer Manufacturing/Nickel Refining
37801 – Petrochemicals – Manufacturing
37805 – Industrial Gases – Manufacturing

11. Plastic Products

37301 – Plastic Products – Manufacturing

12. Other Manufacturing, Processing and Packaging Industries

07900 – Peat Moss – Harvesting/Processing
12304 – Forage Processing
16900 – Rubber Stamps/Stencils – Manufacturing
17901 – Vinyl Goods – Manufacturing /Repair
22101 – Awnings/Tents/Tarps – Manufacturing /Repair
27300 – Cardboard Box/Tubing/Bag – Manufacturing
28603 – Signs/Advertising Displays – Manufacturing
29600 – Aluminum/Metal Extrusion
33500 – Phone Equipment – Manufacturing /Installation
33900 – Light Fixtures – Manufacturing /Assembly
33902 – Electrical Components – Manufacturing
38200 – Jewelry – Manufacturing
38201 – Lapidary Services
39300 – Sporting Equipment/Brooms – Manufacturing
39701 – Outdoor Advertising
39901 – Picture Frame, Case, Casket – Manufacturing
69903 – Pottery – Manufacturing
86201 – Window/Store Display Ad Services
89916 – Taxidermists

CONTACT INFORMATION

For further information about the data presented in this report contact:

Government of Alberta
Employment and Immigration
Data Development and Evaluation
2nd Floor, 10808 – 99 Avenue
Edmonton, Alberta
T5K 0G5

Telephone: 780-427-8531, toll free by calling 310-0000
Fax: 780-422-5070

Employment and Immigration website:

http://employment.alberta.ca

Work Safe Alberta website:

www.worksafely.org

Occupational Health and Safety Contact Centre:

Telephone: 780-415-8690, toll free by calling 1-866-415-8690

http://www.employment.alberta.ca/SFW/2874.html

Certificate of Recognition (COR) Program:

http://www.employment.alberta.ca/SFW/334.html